MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

September 25, 1985

TO: John Bantjes, Plainwell District Office
Surface Water Quality Division

FROM: George Carpenter, Toxic Chemical Evaluation Section
Environmental Services Division

SUBJECT: Review of City of Otsego WWTP IPP Effluent Monitoring

The Toxic Chemical Evaluation Section has reviewed the effluent monitoring conducted by the City of Otsego WWTP and has the following recommendations.

1. PCBs were detected in the Otsego WWTP sludge at a level of 0.11 mg/kg. This chemical is considered a carcinogen by TCES and we therefore recommend that a monthly average water quality-based effluent limit (WQBEL) of 1.2×10^{-5} ug/l be included in the City of Otsego WWTP NPDES permit. Based on the inability of determining a threshold for this chemical, its discharge should be minimized by applicable treatment technology. The WQBEL should not be used if it is less restrictive than treatment-based limitations. This WQBEL, equates to an estimated incremental lifetime cancer risk of one additional cancer case for every 100,000 people exposed.

   Because state-of-the-art analytical techniques are not sufficiently sensitive to detect PCBs at this level in the effluent, TCES recommends that the method detection limit of 0.5 ug/l be used as an interim limitation. A report containing a plan and schedule to make reasonable progress to achieve the final effluent limitation should be submitted to the Chief of the Surface Water Quality Division by the permittee after the issuance of the NPDES permit.

   Compliance with the above interim limitation should be demonstrated by monitoring the City of Otsego WWTP effluent twice per month using EPA analytical method 608.

2. No recomendation for water quality-based effluent limits or further monitoring for chloroform; 1,2 dichloroethene; and trichlorethylene.

3. TCES requests that the standard toxic chemical notification requirement be included in the NPDES permit.

cc: R. Hobrla, SWQD
J. Grant/TCES files

Point Source Discharge Sampling Results for PCB, Kalamazoo area, [redacted]

Nanograms/l = Parts per Trillion

Discharge	Date	Total PCB (ng/l)	Suspended Solids (mg/l)	Source H$_2$O
Allied Paper	8/ 7/85	<20 (INT)	–	
	9/ 6/85	69	38	Portage Creek
James River (Kalamazoo)	8/ 7/85	80	–	
	9/ 6/85	15	19	Kalamazoo River
Kalamazoo WWTP	8/ 7/85	<60 (INT)	–	
	9/ 6/85	13	<4	–
James River Parchment	8/ 7/85	30 (INT)	–	Kalamazoo River
	9/ 6/85	14	16	or Wells
Plainwell Paper	8/28/85	<10	24	Wells
	9/ 6/85	39	6	
Plainwell WWTP	8/ 7/85	17 (INT)	–	
	9/ 6/85	31	17	–
Otsego WWTP	8/ 7/85	178	–	–
	9/ 6/85	167	44	
Mead, Otsego	8/ 7/85	39 (L.R.)	–	Wells
	9/ 6/85	56	37	
Mensha, Otsego (Process H$_2$O)	8/ 7/85	16 (L.R.)	–	Otsego City
	9/ 6/85	20	460	or Wells

INT = Interference
L.R. = Low Recovery Probable

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